

AMENDMENT AND PRESENTATION OF CLAIMS

Please replace all prior claims in the present application with the following claims.

1. (Currently Amended) A ~~computer implemented~~ method comprising:
~~for processing, at a processor,~~ a plurality of toponyms, wherein each of the toponyms ~~of the~~
~~plurality of toponyms~~ has one or more readings; ~~_, said method comprising utilizing a~~
~~computer system to perform the functions of:~~
(a) ~~for each document within a large corpus~~ plurality of documents, identifying geo-textual
correlations among readings of the toponyms ~~within the plurality of toponyms; and~~
(b) ~~selecting a toponym from one of~~ the plurality of toponyms;
~~and for that selected toponym,~~ selecting a reading of ~~that~~ the one toponym; ~~[[,]]~~ and
~~for that selected toponym-reading pair computing~~ determining a value for a confidence that
the selected toponym ~~means that~~ is associated with the selected reading,
wherein ~~computing~~ determining said value involves a mathematical summation over ~~all the~~
plurality of documents ~~in the corpus~~ in which geo-textual correlations were identified that
involved that toponym-reading pair.
2. (Currently Amended) The ~~computer implemented~~ method of claim 1, further
comprising:
using the value for the confidence generated for the selected toponym-reading pair to rank
documents according to their relevance to a search query.

3. (Currently Amended) The ~~computer-implemented~~ method of claim 1, further comprising:

selecting a starting value for the confidence for that selected toponym-pair, ~~and~~
wherein computing the value for confidences involves further includes modifying the starting value based on the identified geo-textual correlations within the plurality of documents corpus.

4. (Currently Amended) The ~~computer-implemented~~ method of claim 3, wherein selecting the starting value ~~s for the confidences for the plurality of toponyms~~ involves using a method of uniform priors.

5. (Currently Amended) The ~~computer-implemented~~ method of claim 1, wherein identifying geo-textual correlations ~~involves~~ includes identifying within the plurality of documents in the corpus toponyms that have associated geographic locations that are nearby to each other.

6. (Currently Amended) The ~~computer-implemented~~ method of claim 1, wherein identifying geo-textual correlations ~~involves~~ includes identifying spatial correlation among geographic references of toponyms that are in textual proximity.

7. (Currently Amended) The ~~computer-implemented~~ method of claim 6, wherein textual proximity means within the same document.

8. (Currently Amended) The ~~computer-implemented~~ method of claim 6, wherein textual proximity means within the same document or any document closely linked with said same document.

9. (Currently Amended) The ~~computer-implemented~~ method of claim 1, further comprising:

processing the ~~corpus~~ plurality of documents by a named entity tagger prior to identifying the geo-textual correlations.

10. (Currently Amended) A ~~computer-implemented~~ method comprising:

~~of generating, at a processor,~~ information ~~useful~~ for ranking a target document that includes a plurality of toponyms for which there is a corresponding plurality of ~~(toponym, place)~~ toponym-place pairs,

wherein the place of each ~~(toponym, place)~~ toponym-place pair of the plurality of ~~(toponym, place)~~ toponym-place pairs identifies a geographical location or region designated by the toponym; ~~said method comprising utilizing a computer system to perform the functions of:~~

for a selected ~~(toponym, place)~~ toponym-place pair of the plurality of ~~(toponym, place)~~ toponym-place pairs that is found within the target document: [[,]]

(1) obtaining a pre-computed number for a value of a confidence that the toponym of the selected ~~(toponym, place)~~ toponym-place pair refers to the place of the selected ~~(toponym, place)~~ toponym-place pair, said pre-computed number derived from a statistical observation about a ~~large corpus~~ plurality of documents;

- (2) determining if another toponym is present within the target document that has an associated place that is geographically related to the place referred to by the selected ~~(toponym, place)~~ toponym-place pair; and
- (3) if a the other toponym is identified within the target document that has an associated place that is geographically related to the place referred to by the selected ~~(toponym, place)~~ toponym-place pair, boosting the value of the confidence for the selected toponym-place ~~(toponym, place)~~ pair for the target document.

11. (Currently Amended) The ~~computer-implemented~~ method of claim 10, wherein determining if ~~another~~ the other toponym is present within the target document that has an associated place that is geographically related to the place referred to by the selected toponym-place ~~(toponym, place)~~ pair involves identifying ~~another~~ the other toponym ~~that has an~~ based, at least in part, on the other toponym having an associated geographic region that encompasses the place referred to by the selected toponym-place ~~(toponym, place)~~ pair.

12. (Currently Amended) The ~~computer-implemented~~ method of claim 10, wherein determining if the other ~~another~~ toponym is present within the target document that has an associated place that is geographically related to the place referred to by the selected toponym-place ~~(toponym, place)~~ pair ~~involves~~ includes identifying the other ~~another~~ toponym based, at least in part, on ~~that has~~ the other toponym having an associated place that is geographically nearby the place referred to by the selected toponym-place ~~(toponym, place)~~ pair.

13. (Currently Amended) The ~~computer-implemented~~ method of claim 12, further comprising:

computing a geographical distance between the place associated with the identified toponym and the place referred to by the selected toponym-place (~~toponym, place~~) pair.

14. (Currently Amended) The ~~computer-implemented~~ method of claim 13, wherein boosting involves calculating an adjustment value by computing an adjustment boosting function with the computed geographical distance as an input variable, said adjustment boosting function being monotonically decreasing for increasing values of the input variable.

15. (Currently Amended) The ~~computer-implemented~~ method of claim 14, wherein boosting further involves deriving an initial boosting value from input including the calculated adjustment value.

16. (Currently Amended) The ~~computer-implemented~~ method of claim 15, wherein boosting further involves applying a sigmoid function to the derived initial boosting value to compute a final boosting value and modifying the value of the confidence for the selected toponym-place (~~toponym, place~~) pair by an amount determined by the final boosting value.

17. - 20. (Canceled)

21. (Currently Amended) The ~~computer-implemented~~ method of claim 1, further comprising: ~~repeating step (b)~~

computing at least one confidence value for each reading of that selected toponym.

22. (Currently Amended) The ~~computer-implemented~~ method of claim 1, further comprising:

~~repeating step (b)~~ selecting for each toponym among the plurality of toponyms;

selecting a respective reading for each of the respective selected toponyms; and

for each selected toponym-reading pair, computing a respective confidence that the each respective selected toponym means that respective selected reading.

23. (Currently Amended) The ~~computer-implemented~~ method of claim 1, wherein a reading of a toponym is a geographical location or region designated by the toponym.

24. (Currently Amended) The ~~computer-implemented~~ method of claim 1, wherein computing said value is done iteratively to arrive at the value for the confidence that the selected toponym means that selected reading.

25. (Currently Amended) The ~~computer-implemented~~ method of claim 1, wherein the mathematical summation is of previously determined confidences.

26. (Currently Amended) The ~~computer-implemented~~ method of claim 10, wherein the associated place is different from the place referred to by the selected toponym-place (~~toponym, place~~) pair.

27. (New) An apparatus comprising:

at least one processor; and

at least one memory including computer program code for one or more programs,

the at least one memory and the computer program code configured to, with the at least one processor, cause the apparatus to perform at least the following,

process a plurality of toponyms, wherein each of the toponyms has one or more readings;

for each document within a plurality of documents, identify geo-textual correlations among readings of the toponyms; and

select one of the plurality of toponyms;

select a reading of the one toponym; and

determine a value for a confidence that the selected toponym is associated with the selected reading based, at least in part, on a mathematical summation over the plurality of documents in which geo-textual correlations were identified that involved the toponym-reading pair.

28. (New) The apparatus of claim 27, wherein the apparatus is further caused to:

use the value for the confidence generated for the selected toponym-reading pair to rank documents according to their relevance to a search query.